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CIA/ER IEEW 81-018

# International Economic & Energy Weekly

7 May 1981

APPROVED FOR  
RELEASE DATE:  
24-Sep-2009

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ER IEEW 81-018  
7 May 1981

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## OECD Dependence on Tungsten Imports Declining [ ]

Rapid increases in OECD tungsten production and slower growth in demand will reduce the OECD's reliance on imports from more than 40 percent in 1979 to less than 10 percent by 1985:

- The West will no longer have to rely on imports from China, which now account for one-third of OECD imports.
- The United States will not have to draw down strategic stockpiles, as it did in the 1970s to make up the supply gap.
- Tungsten prices, which nearly doubled in real terms during the 1970s, will drop [ ]

### Tungsten Supplies

Tungsten is critical to aerospace applications, mining equipment, armament, and superhard steels. Although precise data are unavailable, Communist countries account for one-half of world mine production and nearly two-thirds of tungsten reserves. China possesses about half the world's tungsten reserves. Aggressive exploitation has more than doubled Chinese production since 1975, almost all of which has been exported. Although Chinese exports to the OECD have grown markedly, they account for a diminishing share of total tungsten exports. Most of China's increased exports have gone to the USSR, where domestic production has failed to keep pace with needs.<sup>1</sup> The surge in Chinese production appears over, and we expect China to make only small advances [ ]

Among the major LDC producers, Bolivia, Thailand, and Brazil increased tungsten output only gradually during the 1970s. We expect total LDC production to remain at the current level through [ ]

### Tungsten Production and Consumption

	1970	1975	1980 <sup>a</sup>	1985 <sup>a</sup>
World production <sup>b</sup>	32.1	36.8	51.5	63.0
OECD	9.6	9.8	14.3	22.0
United States	4.2	2.5	3.2	4.4
LDCs	7.9	10.0	11.0	11.0
Communist	14.6	17.0	26.2	30.0
USSR	6.9	8.1	9.2	10.5
China	5.5	6.7	14.8	16.5
World consumption <sup>c</sup>	38.1	36.6	46.5	53.0
OECD	24.5	15.6	21.0	24.0
United States	7.6	6.4	9.3	11.5
LDCs	0.4	0.4	2.2	3.0
Communist	12.9	20.3	23.0	26.0
USSR	7.3	12.0	13.0	15.0
China	2.1	3.0	4.0	5.0

<sup>a</sup> Estimated.

<sup>b</sup> Communist figures are estimates. The 1985 estimate of world tungsten output is based on planned additions to tungsten mining capacity in the OECD plus expected increases in tungsten production from other countries. Production figures in the United States significantly underestimate domestic supplies since the US stockpile is an important tungsten source.

<sup>c</sup> Consumption figures are either actual or apparent consumption (production plus imports minus exports).

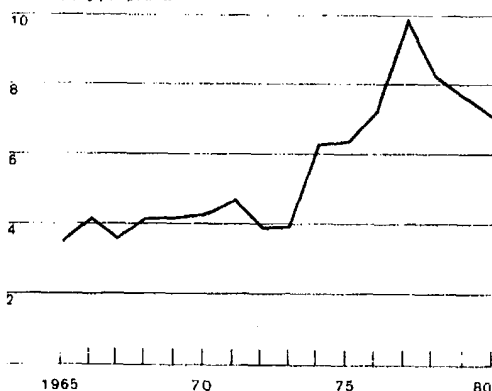
[ ] 1985. Their exports to the OECD will almost certainly fall [ ]

Spurred by rising real prices, private companies in the mid-1970s launched a major expansion of tungsten mining capacity in the OECD countries. Between 1975 and 1980, OECD production spurted

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### United States: Real Tungsten Prices

1978 US \$ per pound



### OECD: Tungsten Imports by Country of Origin

Tons of Contained Metal

	1975	1976	1977	1978	1979
Total	8,092	8,332	7,060	8,576	10,133
China	1,711	2,338	1,506	2,046	3,348
Bolivia	486	1,375	1,579	1,832	2,151
Thailand	978	1,256	873	1,413	1,517
South Korea	1,403	1,057	848	907	828
Peru	881	633	536	275	623
Brazil	738	598	427	562	276
Other	1,895	1,075	1,291	1,541	1,360

\* Excluding intra-OECD trade.

located on the border between the Yukon and the Northwest Territories, into operation by 1985. Initial production at this facility is scheduled to be about 2,400 tons per year.

about one-half, but in 1980 still accounted for only one-fourth of the world's total output. Even that increase and sales of one-fifth of the US stockpile during those years failed to meet burgeoning OECD demands. Total OECD imports grew by 25 percent during 1976-79. Nearly all of the increase came from China, Bolivia, and Thailand; their tungsten shipments more than doubled. With the US stockpile roughly in line with US goals, further supplies from this source will be small. An additional 7,000 tons of mining capacity (equal to about one-third of present OECD requirements) is expected to come on stream by the mid-1980s in the developed West. Canada will account for more than half of this increase; the United Kingdom and the United States making up most of the remainder:

- In Canada, Billiton and New Brunswick Tin are jointly developing the Mt. Pleasant tungsten property, which is scheduled to start production by the end of this year, or early 1982, at an annual rate of about 1,400 tons. In addition, Amax Canada Ltd is planning to put the Mactung mine deposit.

- Two US producers, General Electric and Union Carbide, are planning to develop and expand tungsten operations in Nevada. General Electric is scheduled to start up its Springer Mine in 1982 at a rate of 725 tons per year. Expansion at Union Carbide's Emerson facility will double tungsten production to 900 tons later this year.
- In the United Kingdom exploratory drilling has been completed at the Hemerdon tungsten deposit, and startup for this 2,000-ton-per-year facility is tentatively set for 1985.

### Tungsten Demand

During the next few years world tungsten supplies will exceed demand by a wide margin. Mine capacity expansion during 1981-85 should be able to accommodate one and a half times the demand growth experienced in the last half of the 1970s. Despite the expectation of strong demand from some key users such as equipment manufacturers and drill bit makers, overall tungsten use will grow

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moderately. Demand for alloyed steels in general is not expected to grow as rapidly as in the past decade. Sluggish construction will hold down orders for earthmoving equipment, and weak auto demand is retarding the machine tool sector. Where substitution is possible, low molybdenum prices are causing tungsten users to switch to the cheaper alloy. Finally, the greater use of tungsten carbides instead of alloyed steel, which requires larger amounts of tungsten, will help hold demand growth rates substantially below those of the recent past. The bulk of the OECD demand increase will come from the United States [redacted]

#### **Tungsten Prices and Price Stabilization**

Although tungsten supplies increasingly will exceed demand during the next few years, producers likely will continue operating at full capacity, building inventories in anticipation of higher demand growth in the late 1980s. Prices undoubtedly will fall, reversing the trend of the last decade. In 1980, average real tungsten prices were twice those of 1972. Moreover, the volatility that has long characterized tungsten prices will ease. Indeed, the range of monthly price averages in 1980 fluctuated by little more than 8 percent, compared with 39 percent in 1976. The major cause of this increased stability is China's recent emergence as a more responsive and consistent supplier of tungsten to world markets [redacted]

The softening market has heightened concern by LDC producers that want tungsten brought under an UNCTAD umbrella. Their failure to make headway toward a price stabilization agreement during the years of scarcity and high prices bodes ill for success now. This was illustrated by a tungsten producers meeting in March that was poorly attended and ended with no agreed course of action. [redacted]

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